Proceedings of the New York Entomological Society

(Meetings held in Room 129 of the American Museum of Natural History unless otherwise indicated)

Editor's note: The following is the abstract of the talk of the same title which was given at the May 4, 1965 meeting. It was received too late for the **Proceedings** published in **73**(3): 188, the September, 1965 issue of the **Journal.**

The Biology of Parasitic Copepods

In both *Lernaea cyprinacea*, a freshwater species, and *Lernaeenicus polyceraus*, a marine species, the parasitic females are anchored in the host's tissues. These two morphologically similar species are placed in the same order (Caligidae) as *Caligus rapax*. Both sexes of the latter are parasitic, but are capable of moving freely over the surface of their marine hosts. Although *C. rapax* is morphologically distinctly different than either of the other species, life history studies indicate marked similarities with that of *Lernaeenicus polyceraus*.

Both of the marine species have as a part of their cycles a larval stage, the chalimus, attached to the host by a secreted frontal filament. Such a structure is absent in the freshwater form, the larvae adhering to the host only by means of the maxillipeds. This allows movement about the host and transfer to new hosts. Transfer between hosts is facilitated by the low degree of host specificity shown by the larvae of *Lernaea cyprinacea*. In contrast, the larvae of both of the marine species are highly specific. Only a single host species is known to be capable of supporting development of *Lernaeenicus polyceraus*. All three species are capable of completing the life history on a single host, but the involvement of more than one host is probably common. Also, the three species pass through the same free-swimming stages, but the marine forms develop in a third of the time necessary for the freshwater parasite.

Thus, the life histories of parasitic copepods seem to be adaptations to particular habitats. While morphology may indicate relationship between species, life histories may vary considerably.

Robert Shields

Meeting of October 5, 1965

President Jerome Rozen presided; 21 members and 3 guests were present. Dr. Dennis O'Brian of Seton Hall University in New Jersey, proposed for membership at the last meeting, was elected and Mrs. Beatrice Vogel, a student at Yale University working on the systematics of spiders, was proposed for membership. Dr. Rozen complimented the Committee on the Bylaws Revision on its work and announced that copies were ready for mailing to the members for discussion at a forthcoming meeting.

Program. **Summer Activities of Members.** Dr. Rozen opened the program by exhibiting living specimens of euglossinid bees from Trinidad. He discussed a recent article in Life magazine on an African subspecies of the common honey bee which had been introduced into South America and is causing havoc there. Miss Alice Gray announced that the Junior Society went on an overnight trip in June, primarily to do black-light collecting. They have now had their first meeting of the fall, and have 10 active members, 1 candidate, and 4 prospective members. She showed a "railroad worm" or luminous larviform female of a phengoid beetle, and a children's insect book in Japanese. Miss Iona Deur showed some drawings of insects. Mr. Albert Poelzl has been tape recording some insect sounds. Dr. Stanislaus Bleszynski, a Polish lepidopterist specializing in the Crambinae, was introduced by Dr. Alexander Klots. Dr. Bleszynski spent part of the summer in Ontario collecting Lepidoptera and Trichoptera

and found *Cicada bipunctulata*, not previously recorded from North America. He is the author of a section in the *Microlepidoptera Palaeartica* which was exhibited. Dr. Asher Treat invited members to attend the Biology Colloquium of the City College for this fall semester which is on **The Sensory Physiology of Arthropods.** Dr. Edwin W. Teale gave some observations on the wildlife near his home, including 52 species of birds sighted this summer. His latest book, **Wandering Through Winter**, was exhibited. Mr. Bernard Heineman collected moths in light traps for part of the summer. Mrs. Patricia Vaurie did some collecting in Pennsylvania, but reported poor results. Dr. Klots showed some caterpillars of *Dasychira* (Lymantriidae) which are apparently larvae at the wrong part of the season. He mentioned that Mrs. Alice Hopf has published a book on the Monarch butterfly. Dr. John Schmitt told of his current interest in the maritime earwig. Mr. Rutkowski observed local colonies of butterflies. Mr. Arthur Bordes showed material collected in the tropics. Dr. David Miller commented on 2 weeks spent in Jamaica. Dr. Richard Fredrickson told of his hike along the Appalachian Trail from Bear Mountain to central Pennsylvania. Mr. John Stamatov made observations on *Cicindela olivacea* in the Florida Keys. This insect is a recent arrival from Cuba. The Robert Buckbees took a trip to Hawk Mountain, and they have recently reared some *Romalea*, a lycosid spider, and some *Hydrophilus* from Florida.

David C. Miller, *Secretary*

Meeting of October 19, 1965

President Rozen presided; 25 members and 13 guests were present. Mrs. Beatrice Vogel was elected and Mr. Pat Bartolone was proposed for membership. Dr. Roman Vishniac exhibited an entomological book published in 1557. Dr. John Schmitt noted the passing of Dr. Paul Mueller at Basil, Switzerland, who was the discoverer of the insect killing properties of DDT and the Nobel Laureate in 1948 for medicine and physiology. Mr. Lucien Pohl introduced Dr. Claude Lemaire, a lepidopterist from Paris, France, who is visiting at the Museum.
Program. **New Findings on Legionary Ant Research.** Dr. Theodore C. Schneirla of the Department of Animal Behavior of the Museum compared the behavior of the *Eciton*, *Neivamyrmex*, *Aenictus* genera, in which the cyclic alternation between statory and nomadic phases is regular, and *Anomma*, *Labidus*, and others in which this alternation is irregular and the stimulus to the change of phase is the condition of the brood. The talk was illustrated with slides.

David C. Miller, *Secretary*

November 2, 1965, no meeting—Election Day

Meeting of November 16, 1965

Doctor Rozen convened the meeting; 31 members and 4 guests were present. Mr. Pat Bartolone was unanimously elected to membership. Dr. Elsie Klots presented the proposed revised Bylaws which had been previously mailed to the members. These were discussed section by section and some small changes in wording was made. Voting for the acceptance of the Bylaws will take place at the meeting of December 7. Dr. Rozen spoke of the recent work of the Executive Committee of the Society; in addition to approving the proposed new Bylaws, it has been considering details of a proposed merger with the Brooklyn Entomological Society.
Program. **Tropical Biology and Passalid Beetles as Ecological Indicators.** Dr. Janus Roze of the Universidad Central de Venezuela in Caracas described many of the ecologically different areas found in Venezuela and indicated the presence of different species of Passalidae in these areas. His talk was illustrated with slides.

David C. Miller, *Secretary*

Meeting of December 7, 1965

President Rozen called the meeting to order in Room 319. Although 25 members and 33 guests signed the attendance book, there were over 100 people present. Mr. J. N. L. Stibick of the Catholic University of America, Washington, D. C., was proposed for membership. Dr. Elsie Klots of the Bylaws Revision Committee reported on the rewording of Article X, Sections 3 and 6. It was then moved by Dr. Ruckes and generally seconded that these proposed Bylaws be accepted as the Official Bylaws of the Society. The motion was unanimously passed. A vote of thanks was made to this Committee, which consisted of Mr. Bernard Heineman, Dr. Asher Treat, and Dr. Elsie Klots, the chairman. Some guests were introduced: Miss Ragna Tischler, daughter of a Professor of Entomology at Kiel, Germany; Mr. William Howe of Ottawa, Kansas, who showed several paintings of Lepidoptera which he had done; Mr. Hobart Van Deusen of the Department of Mammals at the Museum.

Program. **20,000 Miles Through Winter.** Dr. Edwin Way Teale, the noted natural history author and long-time member of the Society illustrated his talk with excellent color slides. He took us on a trip through North America from the Southern California coast to New England during the winter season. This was the material-gathering trip for his recently published book **Wandering Through Winter.** The talk was excellently received.

David C. Miller, *Secretary*

Meeting of December 21, 1965

In the absence of the President, Vice-President Richard Fredrickson presided; 20 members and 6 guests were present. Mr. J. N. L. Stibick was unanimously elected to membership. Dr. Elsie Klots introduced Professor James C. Bradley of Cornell University as a guest. Dr. Fredrickson announced the appointment by President Rozen of the following Committees: Auditing—Mr. John Pallister and Dr. Fredrickson; Nominating—Dr. Asher Treat, Mr. Bernard Heineman, and Dr. David Miller.

Program. **My Favorite Insect.** This consisted of short discussions of insects by the members. Dr. Fredrickson began by showing a few slides of mites in the hypopal stage, and he commented on the biology of this stage. Dr. Miller discussed the biology of mites of the genus *Sennertia*, which live a hypopodes on carpenter bees and spend the remainder of the life history in the nests of these bees. Mr. Michael Orlove discussed observations on the biology of the carpenter bee, *Xylocopa virginica*. Dr. A. B. Klots commented on the increase in melanism in recent years in the moth, *Panthea furcilla* (Grote) in the eastern United States. Mr. Daniel Schweitzer showed some attractive Riker mounts of insects.

David C. Miller, *Secretary*

Meeting of January 4, 1966 cancelled because of the New York City transit strike

Meeting of January 18, 1966

President Rozen called the Annual Meeting to order in Room 319; 27 members and 25 guests were present. Dr. Lucy Clausen, in her report as Editor of the **Journal**, stated that the first full year with the new printer, the Allen Press, has resulted in a substantial reduction of the publication costs. The printer uses a billing system based on a flat page charge. This makes it possible to readily allocate costs for illustrations and tabular material if charges to authors are necessary. Several authors have paid for the publication of their papers from grant money, and a commercial firm has contributed to the costs of one of the longer papers. The **Journal** for this past year has contained 248 pages, representing 33 papers, book reviews, proceedings, etc. The papers include eight orders of insects and a few general papers. Waiting time for publication is now 3 to 6 months after receipt of the paper. Manuscripts are solicited. Dr.

Asher Treat reported for the Nominating Committee. He explained that the provisions in the new Bylaws concerning trustees required the election this year of four to serve staggered terms. The following slate of officers was nominated and elected:

President—Dr. Richard Fredrickson
Vice-President—Dr. Kumar Krishna
Secretary—Mrs. Lucy Heineman
Assistant Secretary—Mr. Albert Poelzl
Treasurer—Mr. Raymond Brush
Assistant Treasurer—Mrs. Patricia Vaurie
Trustees—One-year term, Dr. Alexander B. Klots
Dr. John B. Schmitt
Two-year term, Dr. Jerome Rozen, Jr.
Mr. Robert Buckbee
Dr. Asher Treat
Dr. Pedro Wygodzinsky

Dr. Richard Fredrickson, the newly elected President, took over the meeting. The outgoing officers were accorded a vote of thanks for their very fine services rendered to the Society.
Dr. George Steyskal of the U. S. Department of Agriculture was introduced as a guest along with several plant quarantine inspectors who were in New York taking courses in inspection procedures.
Miss Margaret Pogany of the Washington Square Press was nominated for membership.
The following memorial resolution for Dr. Herbert Ruckes, prepared by Dr. Asher Treat, was read:

> The death of Herbert Ruckes on December twenty-third, nineteen sixty-five, leaves the New York Entomological Society both saddened at the personal loss of a dear friend, and dismayed at the unfillable vacancy created in our councils by his passing. We recall with pride and gratitude the many distinguished papers that he contributed to our **Journal**, the rich humor and experience with which he enlivened so many of our meetings, and the years of devoted service that he gave us both in the offices that he filled and in his unfailing helpful relations with his fellow members. Few can reckon or remember all that he did for us, but all of us know how much we shall miss his wisdom and companionship. We have been honored and strengthened by his long association with us, and we shall always remember him with thankfulness and with affection.
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> Be it resolved, therefore, that the Society rise in tribute to the memory of Dr. Ruckes, that this resolution be spread upon the minutes, and that a copy be sent to the surviving members of his family.

The members stood for a moment of silence in his memory.
PROGRAM. **Secular Genetic Changes in Natural Populations of *Drosophila pseudoobscure*** by Dr. Theodosius Dobzhansky of the Rockefeller University. (An abstract follows.)

DAVID C. MILLER, *Secretary*

Secular Genetic Changes in Natural Populations of *Drosophila pseudoobscura*.

Populations of *D. pseudoobscura* were sampled during the summers of 1964 and 1965 in 17 localities in British Columbia, Washington, Oregon, Utah, Colorado, Arizona, New Mexico, and Texas. The variation in the gene arrangement in the third chromosome was studied. The data so obtained are compared with those for California and Nevada populations sampled in 1963, and with older samples taken in 1957 and in 1940 or thereabouts.
With few exceptions, the populations of the Pacific Coast states underwent similar changes

between 1940 and 1963–1965, certain gene arrangements having grown more and others less frequent. No such systematic changes occurred in the populations living further to the east. In some localities the genetic composition of the populations remained unchanged; in other localities considerable changes were observed, but these changes were different in kind in different populations.

The causation of the genetic changes observed remains problematic.

Theodosius Dobzhansky